

Revision of the Genus *Pandanus* Stickman, Part 26

Pandanus mayotteensis from the Iles Comores

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UP TO THE PRESENT there has been known only one species of *Pandanus* in the Iles Comores, *P. maximus* Martelli (sect. *Pandanus*), indigenous to the Ile Grande Comore. Now, there can be announced a second species from the islands, *P. mayotteensis* (sect. *Vinsonia*). The islands lie in the Mozambique Channel, about midway between Madagascar and Mozambique, Africa.

Pandanus mayotteensis sp. nov. (sect. *Vinsonia*)

Figs. 245, 245A, 246.

NOM. VERN.: "doua," "pandanus panaché" (= foreign *Pandanus*).

DIAGNOSIS HOLOTYPE: Arbor 4–6 m alta 10 cm diametro, cortice brunneo sublaevi, radicibus fulturosis nullis, foliis 1.5–1.6 m longis 5.7–6.7 cm latis supra olivaceis infra pallidioribus coriaceis in sectione mediali cum 43–45 nervis parallelis secundariis in dimidio quoque proxima basem cum nervis tertiis transversis eis reticulis breviter oblongis formantibus supra latiter sulcatis et cum plicis binis in sectione M-formatis laminis ligulatis sed in media ultima in apice 10 cm longo trigono subulato diminuentibus eo 10 cm ex apice 5 mm lato basi amplexicauli inermi sed ex 10.5–15 cm marginibus cum serrae 0.7–1.3 mm longis 2–8 mm separatis albis sed apicibus brunneis, midnervo infra paene ad medium inermi, in sectione mediali marginibus cum aculeis 0.5–0.7 mm longis 3–7 mm separatis subulatis adscendentibus valde adpressis albis, midnervo infra cum aculeis simulantibus sed 0.7–1 mm longis 4–7 mm separatis, in apice subulato marginibus et midnervo infra cum serrulis 0.3–0.5 mm longis 1.5–3 mm separatis, inflorescentia foeminea terminali cum syncarpio solitario erecto, pedunculo 35 cm longo 2 cm diametro recto 3-laterato cum bracteis foliosis paucis deciduis, syncarpio 15 cm longo 14 cm diametro globoso cum 55 phalangibus eis quando viridibus 5.3–5.5 cm longis 3.7–4.6 cm latis 3–4.4 cm crassis sed illis siccatis 4.5 cm longis (forsan partim ex animalibus editis) 2.8–4.1 cm latis 2.2–3.2 cm crassis brunneis (geminis 5.6 cm latis et cum 6 loculis) cuneatis 5–6-angulosis "rubris" parte $\frac{1}{6}$ supera libera lateribus planis apice depresso convexo (vel semiorbiculari) laevi lucido

quando submaturis sinu centrali brevi distincto 0.5–2 mm profundo quando maturis sinibus 5–6 mm profundis confluentibus, carpelis 3–6, stigmatibus 4–8 mm latis cordatis ad oblato-reniformibus brunneis papillosis centripetalibus in phalangibus viridibus prostratis sed in illis siccis obliquis et salientibus, endocarpio supramediali brunneo osseoso lateribus lateralibus 1 mm crassis intra laevibus et lucidis cum humeris, mesocarpio apicali cum fibris fortibus et medulla, mesocarpio basali fibroso et carnosio.

DESCRIPTION OF ALL SPECIMENS EXAMINED: Trees 4–6 m tall, 10–35 cm in diameter; bark brown, fairly smooth; prop roots none (or when present to 70 cm long, 2 cm in diameter, remotely muriculate); leaves 1.03–1.6 m long, 4–6.7 cm wide, above olive-green, below paler green, coriaceous, at midsection with 37–45 parallel secondary veins in each half; near the base with tertiary cross veins, visible on both sides, making a network of short oblong meshes; blade with a broad central furrow and two lateral pleats, thus M-shaped in cross section, almost ligulate, but tapering in outer half to the trigonous subulate 10 cm apex, this 10 cm down 5 mm wide, the base amplexicaul and unarmed, but beginning at 8–15 cm the margins with serrae 0.7–1.3 mm long, 2–8 mm apart, white with slight brown tips; on the underside the midrib unarmed almost to the middle; at midsection the margins with prickles 0.5–0.7 mm long, 3–7 mm apart, subulate, closely appressed ascending, white; the nearby midrib below with similar prickles but these 0.7–1 mm long, 4–7 mm apart; near the apex the margins and midrib with serrulations 0.3–0.5 mm long, 1.5–3 mm apart; pistillate inflorescence terminal, bearing the solitary syncarp erect on a straight peduncle 35 cm long, 1.7–2 cm in diameter, 3-sided, with a few deciduous leafy bracts; syncarp subglobose, 15 cm long, 14 cm in diameter, bearing 38–55 phalanges, these when still green 5.3–5.7 cm long, 3.7–5.5 cm wide, 3–4.4 cm thick, but the fallen dried ones about 4.5 cm long (though it is likely that animals

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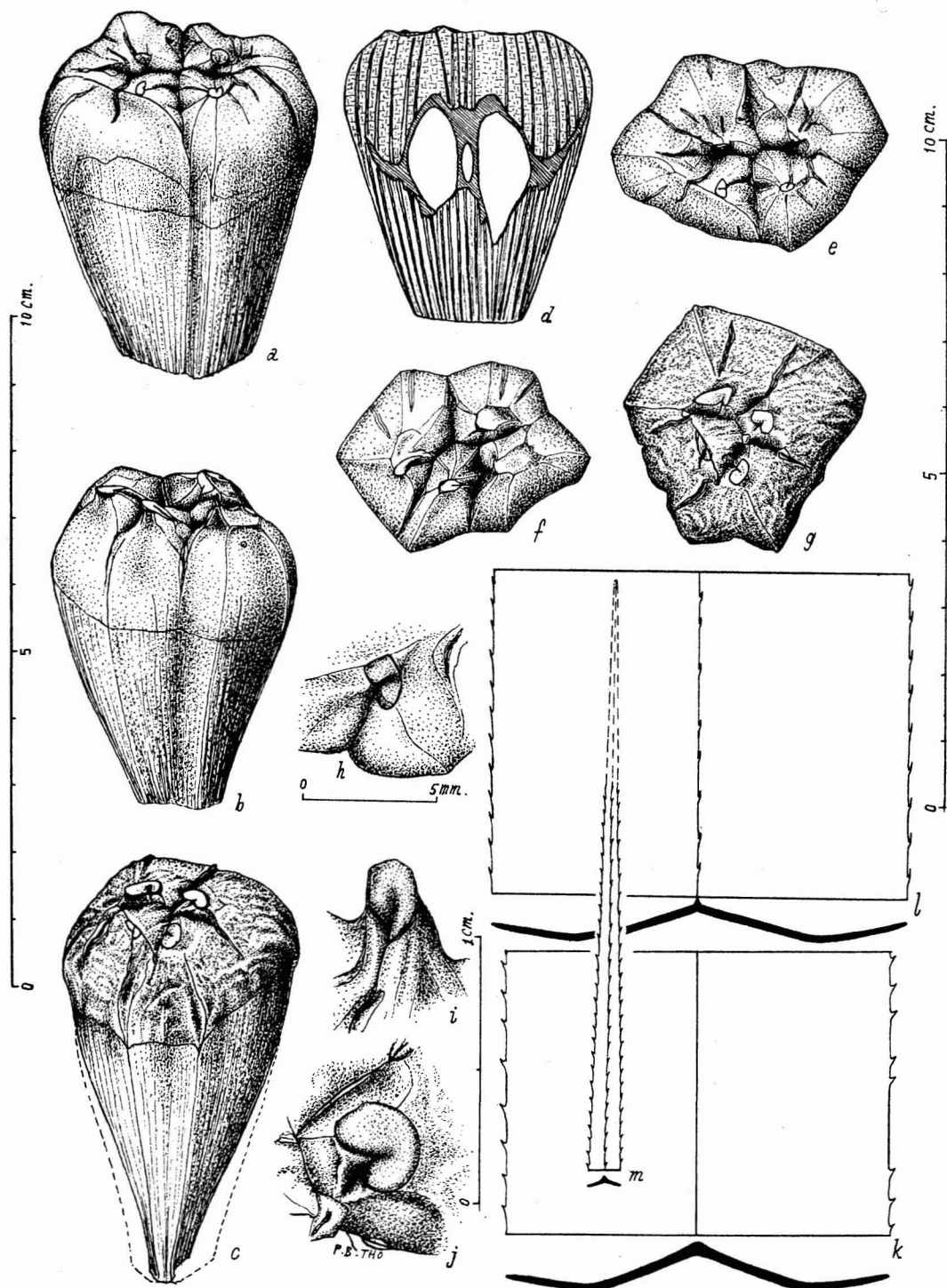


FIG. 245. *Pandanus mayotteensis*, holotype. *a*, *b*, Dry fallen phalanges, lateral view, $\times 1$; *c*, fully grown but green phalange, lateral view, $\times 1$; *d*, dry fallen phalange, longitudinal medial section, $\times 1$; *e*, *f*, dry fallen phalange, apical view, $\times 1$; *g*, fully grown but green phalange, apical view, $\times 1$; *h*, carpel apex and stigma, apical view, $\times 4$; *i*, carpel apex and stigma, lateral view, $\times 4$; *j*, carpel apex and stigma, apical view, $\times 4$; *k*, leaf base, lower side, $\times 1$; *l*, leaf middle, lower side, $\times 1$; *m*, leaf apex, lower side, $\times 1$.

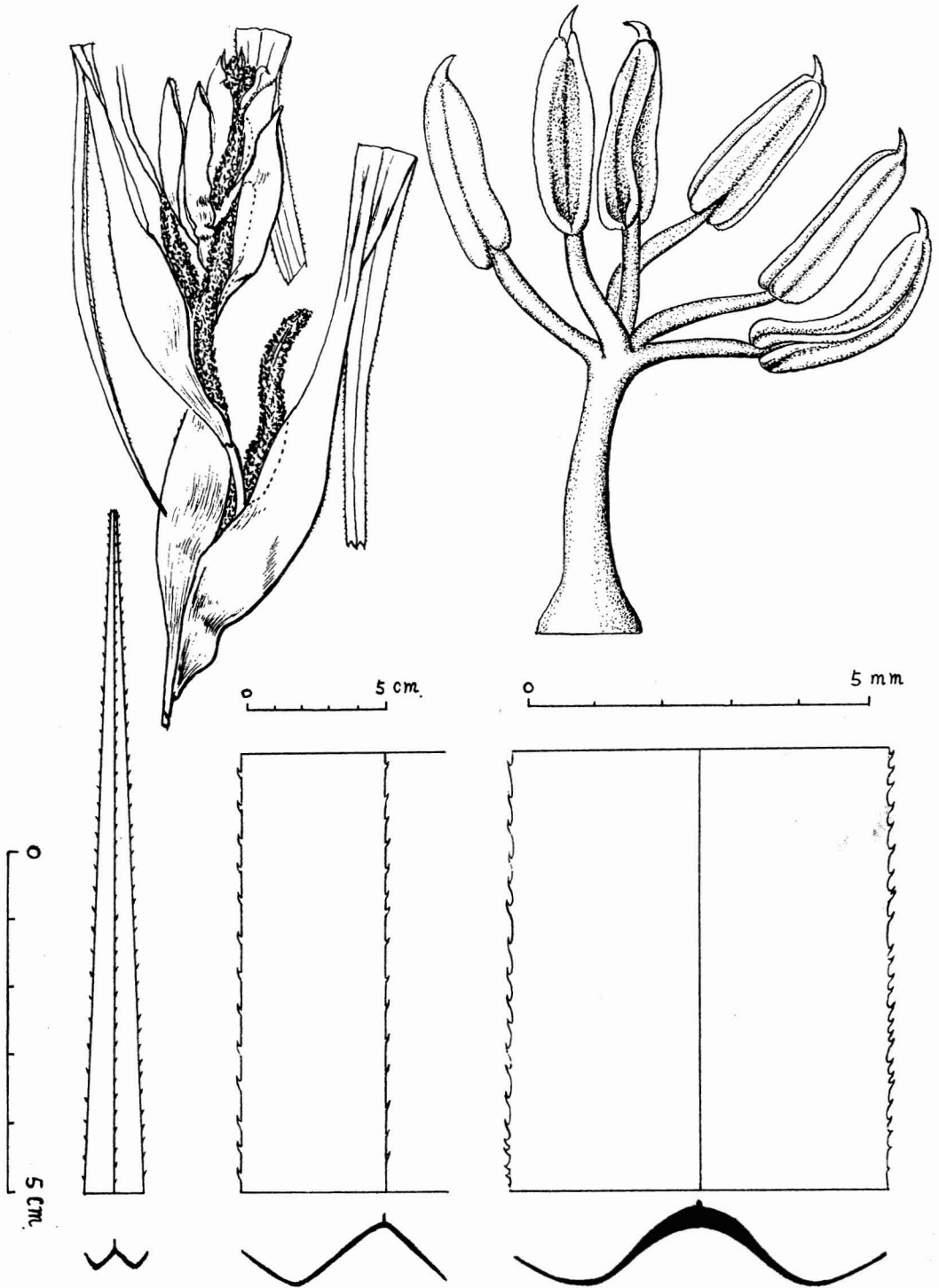


FIG. 245A. *Pandanus mayotteensis* St. John, from St. John 26,548. Top left, staminate inflorescence, $\times \frac{1}{4}$; top right, staminal fascicle, $\times 10$. Bottom left to right, leaf apex, lower side, $\times 1$; leaf middle, lower side, $\times 1$; leaf base, lower side, $\times 1$.

had chewed off part of the base), 2.8–4.1 cm wide, 2.2–3.2 cm thick (but doubles 5.6 cm wide and with 6 cells), brown, cuneate, 5–6-angled, when mature "red," upper $\frac{1}{5}$ free, the sides flat, the apex low convex (or semi-orbicular), smooth, shining, when almost mature with apical central sinus short, separate, 0.5–2 mm deep, but when fully mature with the sinuses confluent and 5–6 mm deep; carpels 2–6; stigmas 4–9 mm wide, cordate to oblate reniform, brown, papillose, centripetal, on the green phalanges horizontal and flush, but on the dried fallen ones oblique and salient; endocarp supramedian, brown, bony, the lateral walls 1 mm thick, smooth and shiny within, with lateral shoulders; apical mesocarp with heavy fibers and continuous pith; basal mesocarp fibrous and fleshy.

STAMINATE PLANT (*St. John* 26,548): Tree 7 m tall, 10 cm in diameter, bark brown, with short conic spines; branchlets 3 cm in diameter; prop roots few, 1 m long, 4 cm in diameter; leaves 1.5 m long, 5.8 cm wide, similar to those of the pistillate trees except at midsection

with 41 parallel secondary veins in each half, and there the margins with subulate-serrae 1.2–1.5 mm long, 3–6 cm apart; subulate apex 5 cm long and at base 4 mm wide; staminate inflorescence 50 cm long, pendent; peduncle 10 cm long, fleshy; bracts mostly white, the lowest floral one at base for 20 cm lance-elliptic, dilated, papyraceous, white, 6 cm wide, the apex 60 cm long, 4 cm wide, sword-shaped, coriaceous, green, with the margins and midrib below serrate; median bract 11.5 cm long, 5 cm wide, oblong-elliptic, white, papyraceous, the margins and midrib below fimbriate, the teeth subulate, 0.5–1 mm long, crowded; spikes about 13 and 5–12 cm long, 2 cm in diameter, dense; fascicles dense, 6–9 mm long, with 5–7 stamens; column 5–6 mm long, umbellate; free filament tips 2.5–4 mm long, anthers 2.3–3 mm long, narrowly oblong, bearing a subulate projection of the connective 0.15–0.2 mm long.

HOLOTYPE: Iles Comores, Ile Mayotte, 5 km SW of Mamoutzou, in forest along stream, 10 m alt, Aug. 19, 1961, *H. St. John* 26,549 (BISH).

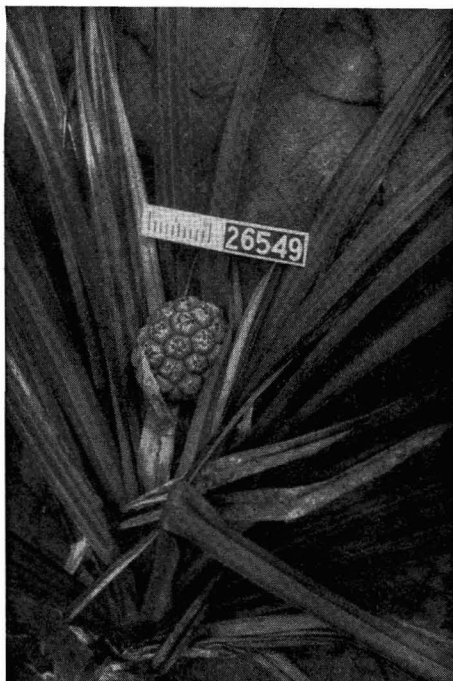
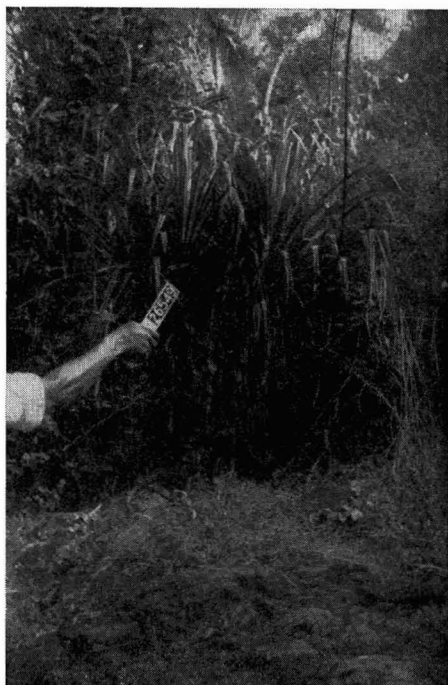


FIG. 246. *Pandanus mayotteensis* St. John, from holotype. Left, tree habit; right, leafy branch with fruiting syncarp.

SPECIMENS EXAMINED: Iles Comores, Ile Mayotte, poussant spontanément en groupes peu éloignés au bord des rivières, marais, généralement près de la mer dans des endroits humides, 21 août 1961, *I. Ramadan* (BISH); Ile Mayotte, Chiconi, Batrini, one tree left in coconut plantation, 8 m alt, Aug. 18, 1961, *H. St. John* 26,548 (BISH); Mayotte, 1847–1852, Boivin (P).

DISCUSSION: *P. mayotteensis* is a member of the section *Vinsonia*, as is its closest relative, *P. heterocarpus* Balf. f., of Rodriguez Island,

a species with the phalanges 4–5 cm long, 3–4 cm wide, the apex dark green or purple and often with a red border at base; stigmas 3–4 mm wide; bark of trunk warty spiny; and the teeth of the leaf margins orange or red. *P. mayotteensis* has the phalanges 5.3–5.7 cm long, 3.7–5.5 cm wide, red; stigmas 4–9 mm wide; bark of trunk fairly smooth; and the teeth of the leaf margins white with slight brown tips.

The new epithet is formed from the name of the island Mayotte, with *-ensis*, the Latin adjectival place ending.